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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,292	10/23/2003	Charles Abraham	GLBL/045	7112

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EXAMINER	
PHUONG, DAI	

ART UNIT	PAPER NUMBER
2685	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/692,292	ABRAHAM, CHARLES	
	Examiner	Art Unit	
	Dai A. Phuong	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/23/2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 11 is objected to under 37 CFR 1.75(c) as being in improper form. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 8 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Allison (U.S. 6,317,603).

Regarding claim 1, Allison discloses a method of distributing information to a mobile receiver, comprising: receiving information representing at least one of ionosphere information, clock information, and satellite integrity information from a first satellite in a first satellite network (fig. 1, col. 2 lines 6-16 and col. 7, lines 48-55), where the received information pertains to at least one satellite in a second satellite network (col. 7, lines 39-61); combining at least a portion of the received information with assistance data to form augmented assistance data (fig. 1, col. 7, lines 39-55 and col. 9, lines 43-50); and coupling the augmented assistance data to a mobile receiver, where the mobile receiver uses the augmented assistance data to process satellite signals from at least one satellite in the second satellite network (fig. 1, col. 7, lines 39-55 and col. 9, lines 43-50).

Regarding claim 8, Allison discloses a method of generating assistance data for an assisted-SPS system comprising: receiving information representing at least one of ionosphere information, clock information, and satellite integrity information from a first satellite in a first satellite network (fig. 1, col. 2, lines 6-16 and col. 7, lines 48-55), where the received information pertains to at least one satellite in a satellite positioning system (SPS) satellite network (col. 7, lines 39-61); combining the received information with assistance data to form augmented assistance data that can be used to process satellite signals transmitted by at least one SPS satellite (fig. 1, col. 7, lines 39-55 and col. 9, lines 43-50).

Regarding claim 15, Allison discloses an apparatus for providing atmospheric information to a mobile receiver comprising: a receiver adapted to receive information representing at least one of ionosphere information, clock information, and satellite integrity information from a first satellite in a first satellite network (fig. 1, col. 2, lines 6-16 and col. 7, lines 48-55), where the received information pertains to at least one satellite in a second satellite network (col. 7, lines 39-61); a server 12 (see fig. 1), coupled to the receiver, for combining at least a portion of the received information with assistance data to form augmented assistance data that can be used by a mobile device to process satellite signals from at least one satellite in the second satellite network (col. 7, line 39 to col. 9, line 50).

Regarding claim 16, Allison discloses all the limitations in claim 15. Further, Allison discloses the apparatus further comprising: a wireless network, coupled to the

server 12, for transmitting the augmented assistance data to a mobile receiver 32 (fig. 1, col. 7, line 39 to col. 9, line 50).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2-7, 9-14 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allison (U.S. 6,317,603) in view of Eschenbach (U.S. 6,529,830).

Regarding claim 2, Allison discloses all the limitations in claim 1. However, Allison does not disclose the method wherein said first satellite network comprises at least one of a Wide Area Augmentation System (WAAS), Euro Geostationary Navigation Overlay Service (EGNOS) and a Multi-Functional Satellite Augmentation System (MSAS).

In the same field of endeavor, Eschenbach discloses the method wherein said first satellite network comprises at least one of a Wide Area Augmentation System (WAAS), Euro Geostationary Navigation Overlay Service (EGNOS) and a Multi-Functional Satellite Augmentation System (MSAS) (col. 2, lines 16-29).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Global Positioning System of Allison by specifically including first satellite network comprises at least one of a Wide Area

Augmentation System (WAAS), Euro Geostationary Navigation Overlay Service (EGNOS) and a Multi-Functional Satellite Augmentation System (MSAS), as taught by Eschenbach, the motivation being in order to provide WAAS like corrections using a server and processor on a network.

Regarding claim 3, Allison discloses all the limitations in claim 1. However, Allison does not disclose the method wherein said ionosphere information is ionospheric delay data.

In the same field of endeavor, Eschenbach disclose the method wherein said ionosphere information is ionospheric delay data (col. 6, lines 47-53 and col. 9, lines 18-34)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Global Positioning System of Allison by specifically including ionosphere information is ionospheric delay data, as taught by Eschenbach, the motivation being in order to provide WAAS like corrections using a server and processor on a network.

Regarding claim 4, Allison discloses all the limitations in claim 1. Further, Allison discloses the method wherein the second satellite network is part of at least one of a Global Positioning System, GLONASS, and GALILEO (col. 7, lines 56-61).

Regarding claim 5, Allison discloses all the limitations in claim 1. Further, Allison discloses the method further comprising computing, within the mobile receiver, a

position of the mobile receiver using the augmented assistance data (col. 9, lines 43-50 and col. 10, lines 63 to col. 11, line 7).

Regarding claim 6, Allison discloses all the limitations in claim 1. However, Allison does not disclose the method wherein the augmented assistance data comprises pseudorange correction data that is derived from the received information.

In the same field of endeavor, Eschenbach discloses the method wherein the augmented assistance data comprises pseudorange correction data that is derived from the received information (col. 7, lines 20-28 and col. 7, lines 61 to col. 8, lines 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Global Positioning System of Allison by specifically including the augmented assistance data comprises pseudorange correction data that is derived from the received information, as taught by Eschenbach, the motivation being in order to provide WAAS like corrections using a server and processor on a network.

Regarding claim 7, the combination of Allison and Eschenbach disclose all the limitations in claim 6. Further, Eschenbach discloses the method wherein the pseudorange correction data is sent to the mobile receiver as differential GPS data (col. 7, lines 20-28 and col. 7, lines 61 to col. 8, lines 17).

Regarding claim 9, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 10, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 11, this claim is rejected for the same reason as set forth in claim 4.

Regarding claim 12, this claim is rejected for the same reason as set forth in claim 5.

Regarding claim 13, this claim is rejected for the same reason as set forth in claim 6.

Regarding claim 14, this claim is rejected for the same reason as set forth in claim 7.

Regarding claim 17, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 18, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 19, Allison discloses a method of improving a position computation accurately comprising: receiving information at an A-GPS server representing at least one of ionosphere information, clock information and satellite integrity information from a first satellite in a first satellite network (fig. 1, col. 2, lines 6-16 and col. 7, lines 48-55), where the received information pertains to at least one satellite in a second satellite network (col. 7, lines 39-61).

However, Allison does not disclose computing within a mobile receiver at least one pseudorange measurement, where the pseudorange measurement represents a relative

distance between a mobile receiver and at least one satellite in the second satellite network; sending the at least one pseudorange measurement to the A-GPS server; correcting the at least one pseudorange measurement using the received information; and computing a position of the mobile receiver using the corrected at least one pseudorange.

In the same field of endeavor, Eschenbach discloses computing within a mobile receiver at least one pseudorange measurement (col. 4, lines 4-12 and col. 7, lines 20-28), where the pseudorange measurement represents a relative distance between a mobile receiver and at least one satellite in the second satellite network (col. 10, lines 1-19); sending the at least one pseudorange measurement to the A-GPS server (col. 4, lines 23-31); correcting the at least one pseudorange measurement using the received information (col. 4, lines 32-43); and computing a position of the mobile receiver using the corrected at least one pseudorange (col. 4, lines 4-12 and col. 7, lines 20-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Global Positioning System of Allison by specifically including computing within a mobile receiver at least one pseudorange measurement, where the pseudorange measurement represents a relative distance between a mobile receiver and at least one satellite in the second satellite network; sending the at least one pseudorange measurement to the A-GPS server; correcting the at least one pseudorange measurement using the received information; and computing a position of the mobile receiver using the corrected at least one pseudorange, as taught by Eschenbach, the motivation being in order to provide WAAS like corrections using a server and processor on a network.

Regarding claim 20, this claim is rejected for the same reason as set forth in claim 2.

Regarding claim 21, this claim is rejected for the same reason as set forth in claim 3.

Regarding claim 22, this claim is rejected for the same reason as set forth in claim 4.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cisneros et al. (U.S. 5774829) navigation and positioning system

Watters et al. (U.S. 6249245) GPS and Cellular sytem

Chapman (Pub. No: 20050010365) road weather prediction

Maloney et al. (Pub. No: 20050148346) TDOA/GPS wireless location

Da et al. (Pub. No: 20030054759) monitoring for geo-location system

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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